Application No.: 10/823,729

Art Unit: 2818

Amendment under 37 CFR §1.111

Attorney Docket No.: 042341

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A semiconductor device fabrication method comprising the steps

of:

polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a

polishing pad while only a polishing slurry is supplied onto the polishing pad to [[thereby]]

planarize the surface of the film-to-be-polished; and

after the surface of the film-to-be-polished has been planarized, further polishing the

surface of the film-to-be-polished with [[the]] a polishing pad while said polishing slurry and

water are supplied onto the polishing pad, said polishing slurry and said water being supplied

onto the polishing pad separately,

wherein said polishing slurry comprises abrasive grains and a surfactant additive, and

wherein in the further polishing the surface of the film-to-be-polished, said polishing

slurry is supplied onto the polishing pad through a nozzle, and said water is supplied onto the

polishing pad through another nozzle.

2. (Currently Amended): A semiconductor device fabrication method comprising the steps

of:

polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a

polishing pad while only a polishing slurry is supplied onto the polishing pad to [[thereby]]

planarize the surface of the film-to-be-polished; and

-2-

Application No.: 10/823,729 Amendment under 37 CFR §1.111
Art Unit: 2818 Attorney Docket No.: 042341

after the surface of the film-to-be-polished has been planarized, further polishing the

surface of the film-to-be-polished with [[the]] a polishing pad while a mixture of said polishing

slurry and water is supplied onto the polishing pad,

wherein said polishing slurry comprises abrasive grains and a surfactant additive, [[and]]

wherein a water content in said mixture of said polishing slurry and said water is higher

than a water content in said polishing slurry, and

wherein in the further polishing the surface of the film-to-be-polished, said mixture of

said polishing slurry and said water is supplied onto the polishing pad through a nozzle.

3. (Currently Amended): A semiconductor device fabrication method comprising the steps

of:

polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a

polishing pad while only a polishing slurry is supplied onto the polishing pad to [[thereby]]

planarize the surface of the film-to-be-polished; and

after the surface of the film-to-be-polished has been planarized, further polishing the

surface of the film-to-be-polished with [[the]] a polishing pad while said polishing slurry and

water are supplied onto the polishing pad, said polishing slurry and said water being supplied

onto the polishing pad separately,

wherein said polishing slurry comprises abrasive grains and a surfactant additive, [[and]]

wherein in the step of further polishing the surface of the film-to-be-polished, the water is

supplied to a position outer of a position for said polishing slurry to be supplied to, and

- 3 -

Application No.: 10/823,729 Amendment under 37 CFR §1.111

Art Unit: 2818 Attorney Docket No.: 042341

wherein in the further polishing the surface of the film-to-be-polished, said polishing

slurry is supplied onto the polishing pad through a nozzle, and said water is supplied onto the

polishing pad through another nozzle.

4. (Currently Amended): A semiconductor device fabrication method comprising the steps

of:

polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a

polishing pad while only a polishing slurry is supplied onto the polishing pad to [[thereby]]

planarize the surface of the film-to-be-polished; and

after the surface of the film-to-be-polished has been planarized, further polishing the

surface of the film-to-be-polished with [[the]] a polishing pad while said polishing slurry and

water are supplied onto the polishing pad, said polishing slurry and said water being supplied

onto the polishing pad separately,

wherein said polishing slurry comprises abrasive grains and a surfactant additive, [[and]]

wherein in the step of further polishing the surface of the film-to-be-polished, a supply

amount of [[the]] said water is 2 or more times as much as a supply amount of said polishing

slurry, and

wherein in the further polishing the surface of the film-to-be-polished, said polishing

slurry is supplied onto the polishing pad through a nozzle, and said water is supplied onto the

polishing pad through another nozzle.

- 4 -

Amendment under 37 CFR §1.111 Attorney Docket No.: 042341

Application No.: 10/823,729

Art Unit: 2818

5-11 (Cancelled).

12. (Currently Amended): A semiconductor device fabrication method according to claim

1, further comprising, before the step of planarizing the surface of the film-to-be-polished, the

steps of:

forming over the semiconductor substrate an insulation film having polish characteristics

different from those of the film-to-be-polished;

forming an opening in the insulation film;

etching the semiconductor substrate with the insulation film as a mask to form a trench in

the semiconductor substrate; and

forming the film-to-be-polished in the trench and over the insulation film,

in the step of further polishing the surface of the film-to-be-polished, the surface of the

film-to-be-polished is polished with the insulation film as a stopper.

13. (Currently Amended): A semiconductor device fabrication method according to claim

2, further comprising, before the step of planarizing the surface of the film-to-be-polished, the

steps of:

forming over the semiconductor substrate an insulation film having polish characteristics

different from those of the film-to-be-polished;

forming an opening in the insulation film;

etching the semiconductor substrate with the insulation film as a mask to form a trench in

- 5 -

Application No.: 10/823,729 Amendment under 37 CFR §1.111
Art Unit: 2818 Attorney Docket No.: 042341

the semiconductor substrate; and

forming the film-to-be-polished in the trench and over the insulation film,

in the step of further polishing the surface of the film-to-be-polished, the surface of the film-to-be-polished is polished with the insulation film as a stopper.

14-27 (Cancelled).

28. (Original): A semiconductor device fabrication method according to claim 1, wherein the abrasive grains comprise cerium oxide or silicon oxide, the additive comprises poly(ammonium acrylate).

29. (Original): A semiconductor device fabrication method according to claim 2, wherein the abrasive grains comprise cerium oxide or silicon oxide, the additive comprises poly(ammonium acrylate).

30-33 (Cancelled).

34. (Currently Amended): A semiconductor device fabrication method according to claim 1, wherein

in the step of further polishing the surface of the film-to-be-polished, a supply amount of said polishing slurry to a supply amount of said water is 1:5.

Application No.: 10/823,729 Amendment under 37 CFR §1.111

Art Unit: 2818 Attorney Docket No.: 042341

35. (New): A semiconductor device fabrication method according to claim 1, wherein

the polishing pad used in the further polishing the surface of the film-to-be-polished is

different from the polishing pad used in the polishing the surface of the film-to-be-polished to

planarize the surface of the film-to-be-polished.

36. (New): A semiconductor device fabrication method according to claim 2, wherein

the polishing pad used in the further polishing the surface of the film-to-be-polished is

different from the polishing pad used in the polishing the surface of the film-to-be-polished to

planarize the surface of the film-to-be-polished.

- 7 -